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10/017,559	12/13/2001	Marcel Vencour	112740-362	8059

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EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,559	VENCOUR, MARCEL	
	Examiner	Art Unit	
	Raj Jain	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-10 and 12* is/are rejected.

7)☒ Claim(s) *5 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/19/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: The specification and drawings include the acronym "NAR", which requires to be spelled out at beginning of the first use of the acronym. Appropriate correction is required.

Claim Objections

Claims 1 and 11 are objected to because of the following informalities:

Claim 1 line 19 the limitation states here in part "have parts which can be predetermined that are identical, directly with one of the gateways". It is not clear what is meant by "identical, directly". Appropriate correction is required.

Claim 11 line 17 the limitation states here in part "have parts which can be predetermined that are identical, are directly associated with one of the gateways". It is not clear what is meant by "identical, are directly". Appropriate correction is required.

Claim 5 is objected to because of the following informalities: In line 21 after the word "can" insert "be". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennefeld et al (US006519249B1) in view of Doshi et al (US006594257B1).

Regarding claims 1 and 7, Bennefeld discloses an IP telephony network (see Fig. 1 with IP network 102 connected to a switched network 120 via gateway 104) for routing and transmission of messages in a telecommunications system having both a computer network 102 and a switching-oriented network 120, the method comprising the steps of:

-connecting the computer network 102 (Fig. 1) to the switching-oriented network 114, 120 via a plurality of gateways 104, 106 which are set up for transmitting messages between the computer network and the switching-oriented network (see Fig. 1, col 4 lines 29-65, the computer network 102 communicates messages to a switching network the PSTN 120, 114 via gateways 104, 106);

providing each of the gateways with one address in both networks in accordance with a respective network-specific transmission protocol (see Fig. 1, gateways 104, 106 and gatekeepers 108 and 109 operate in compliance with the H.323 protocol to convert the calls between IP based networks that are routed across the IP network and the circuit switched counterparts that are received from, and delivered to the endpoints via the PSTN, thus a mapping of one-to-one address is performed between IP network and the PSTN network, see col 4 lines 39-47, col 5 lines 14-47);

providing the switching-oriented network with a plurality of telecommunications terminals, each telecommunication terminal having an associated telephone number (see Fig 1, the PSTN 122 has plurality of communications terminals 114,119,118 that

have associated telephone numbers for each terminal respectively, see col 5 lines 27-37.)

assigning names (see Fig. 3b) to the addresses of the gateways in the computer network which can be stored together with the associated address in at least one data bank 110 (Fig. 2) in the computer network 202 (see Fig. 2, The IP telephony system includes a plurality of Gatekeepers associated with one or more gateways, each of Gatekeeper includes a Registration Load Management Unit (RLMU) which may also be resident upon one or more Domain Name Servers (DNSs) servicing the IP network(s) over which the IP telephony system operates. Each Gatekeeper has a record in the DNS with its registration, admission, status and location respectively. Thus names are assigned to the addresses of gateways with a DNS name stored in the DNS server respectively.) The name of the gateway and its check is performed by the gatekeeper 108 (Fig. 1) thru its associated data bank 110 that is requested from the terminal being activated for use (subscribers are registered with the Gatekeepers 108 and 109 to distribute subscriber load among the Gatekeepers 108 and 109. The RLMUs, which may be present in the Gatekeepers 108 and 109 as well as in the Domain Name Server (DNS) 110, work in conjunction with the Gatekeepers to equalize loading among the Gatekeepers 108 and 109 to meet the goals of the system operator. The DNS 110 distributes subscriber load among the Gatekeepers 108 and 109 when a subscriber seeking Gatekeeper registration queries the DNS 110 for the RAS TSAP of its serving Gatekeeper (see Col 6 lines 17-43).

Bennefeld also discloses the intercoupling of gatekeeper service nodes (Fig. 3a with the gatekeeper database nodes servicing an IP network The collection of all endpoints and Gateways managed by a single Gatekeeper 108 or 109 is known as the Gatekeeper zone. The Gatekeeper service nodes 302, 304 and 306 couple to Gatekeeper database nodes 310, 312 and 314. Together, the Gatekeeper database nodes 310, 312 and 314 form the Gatekeeper database 308. The Gatekeeper database nodes 310, 312 and 314 store registration information for subscribers of an IP telephony system. The association of PSTN communications terminals with gateways and IP networks is predetermined based on the telephone number of the PSTN terminal (See col 7 lines 28-39.).

Bennefeld however, fails to disclose associating the telecommunications terminals, which can be predetermined in the switching-oriented network and whose telephone numbers have parts which can be predetermined that are identical, directly with one of the gateways whose address and the computer network is assigned a name formed from the parts of the telephone numbers which are common to the predetermined telecommunications terminals the predetermined telecommunications terminals; and transmitting the messages from a first telecommunications terminal, which is associated with the computer network, to one of the telecommunications terminals which can be predetermined in the switching- oriented network.

Doshi discloses A network-based method for initiating (see Fig 1a) and completing a voice telephony call via the Internet comprising the steps of receiving call completion data at a voice/data network gateway 120 of the public switched telephone

network from an Internet application web server. A switch oriented user 2 has a predetermined telephone number to be used for access to other communication devices by transmitting its information via the voice data gateway 120 (see col 1 lines 35-40). Gateway 120 communicates via known in band or out-of-band signaling links, for example, via an ISDN interface 35 with voice switches 131, 132 or 133, which may be a local, tandem or toll switch, to initiate a call from web surfer 10 via link 6 to the voice telephony network and via link 8 to the Internet application agent location 20, referred to in the drawing as customer location 20. Fig. 1b shows a detail architecture of the voice data gateway 120, messaging interface 121 is coupled to gateway 120, via link 30 to a voice/data gateway 123. Via the voice/data gateway 123, controller 124, receives the data from server 15 (Fig 1a) and, referring to memory 125, checks and recovers information it needs for initiating the completion of a voice telephone call, see col 6 line 61 – col 7 line 40).

The difficulties in placing a telecommunications call via the Internet from customer premises equipment is overcome by providing a voice/data network gateway, via a known network adjunct platform (NAP) of the public switched telecommunications network (PSTN), the voice/data network gateway for permitting the initiation and completion of telecommunications calls. The voice/data network gateway is coupled with the Internet "web application" web server (for example, that of an air carrier) via a telecommunications data link for transmitting a message for triggering the NAP to establish the call. In this manner, functionality is shared among host servers and customers alike,

and no modifications to customer premises equipment are required.

Thus it would have been obvious at the time the invention was made to incorporate the teachings of Doshi within Bennefeld so as to overcome the difficulties in placing a telecommunications call from customer premises equipment in differing network environments by providing a voice/data network gateway, via a known network adjunct platform (NAP) of the public switched telecommunications network (PSTN), so that the voice/data network gateway can complete and connect customers across different network environments.

Regarding claims 2 and 8, Bennefeld discloses an internet telephony system (see Fig. 1 which shows an internet telephony system with gateways 104, 106 coupled to an IP network 102), and the gateways have associated domain names (see Fig. 2 gateways 230 and 236 have associated domain names stored in DNS server 110, see also col 4 lines 29-49).

Regarding claims 3 and 9, Bennefeld discloses where the messages are transmitted between the first telecommunications terminal (see Fig. 1, terminal 112 first terminal) and the second telecommunications terminal 116, 114 (second terminals) via the gateway 104, whose name provides a best match with the telephone number of the second telecommunications terminal (See figs 3A, 3B, The Gatekeeper service nodes 302, 304 and 306 couple to Gatekeeper database nodes 310, 312 and 314. Together, the Gatekeeper database nodes 310, 312 and 314 form the Gatekeeper database 308.

The Gatekeeper database nodes 310, 312 and 314 store registration information for subscribers of an IP telephony system. According to the illustrated construction, any of the Gatekeeper service nodes 302, 304 or 306 may store/retrieve data on/from any of the Gatekeeper database nodes 310, 312 and 314. While a Gatekeeper 108 or 109 is logically separate from Gateways 104 and 106, vendors may incorporate Gatekeeper functionality into the physical implementation of Gateways 104 or 106. Thus, the devices may be co-located where a service provider has available physical space. The Gatekeepers retrieve the domain name from the DNS servers 110 to connect an IP telephone call from one terminal to the second terminal that has best match.)

Claims 4, 6, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennefeld et al (US006519249B1) as applied to claims 1 and 7 above, in view of Doshi et al (US006594257B1) and further in view of Grabelsky et al (US006678250B1).

Regarding claims 4 and 10, Bennefeld and Doshi fail to disclose a hierarchical Gateway architecture and where the Gateways know their hierarchy status.

Grabelsky discloses a network performance monitoring and management system based upon the per-connection statistics collected by the individual network devices or gateways. On a global scale across the network, the network performance statistics collected from network connections across the network can be used to monitor the overall performance of the underlying network to provide a picture of "average" network conditions, as well as highlighting trouble spots.

The network is organized according to a hierarchical grouping of gateway devices to facilitate monitoring of the network (see Fig. 4, Col 2 lines 43-65, col 8 line 36 – col 9 line 57). Gateway devices forming the network are hierarchically grouped in clusters. For example, gateways in the zero hierarchy level are grouped into clusters whereby each gateway in a cluster exchanges data with any other gateway in that cluster. Each level zero cluster also includes a cluster network monitor that monitors network performance conditions between gateway pairs within its cluster. The cluster monitor may also maintain a database to maintain network performance data of the gateway pairs within its cluster.

The hierarchical network organization has several advantages. First, traffic associated with the network performance monitoring and management function can be distributed and the processing burden can also be placed on the appropriate network monitor. Further, the hierarchical arrangement allows for topological localization of the network conditions being monitored. In particular, problems can be traced to the smallest relevant level of the network hierarchy, helping to isolate trouble spots.

Thus it would have been obvious at the time the invention was made to incorporate the teachings of Grabelsky within Bennefeld and Doshi so as to maintain and monitor network connections and overall quality of the network performance and quickly localize and isolate trouble spots

Regarding claims 6 and 12, Bennefeld and Doshi fail to disclose a hierarchical Gateway architecture and where the Gateways know their hierarchy status.

Grabelsky discloses a network performance monitoring and management system based upon the per-connection statistics collected by the individual network devices or gateways. On a global scale across the network, the network performance statistics collected from network connections across the network can be used to monitor the overall performance of the underlying network to provide a picture of "average" network conditions, as well as highlighting trouble spots.

The network is organized according to a hierarchical grouping of gateway devices to facilitate monitoring of the network (see Fig. 4, Col 2 lines 43-65, col 8 line 36 – col 9 line 57). Gateway devices forming the network are hierarchically grouped in clusters. For example, gateways in the zero hierarchy level are grouped into clusters whereby each gateway in a cluster exchanges data with any other gateway in that cluster. Each level zero cluster also includes a cluster network monitor that monitors network performance conditions between gateway pairs within its cluster. At the lowest level of the network hierarchy, gateways 69, 70, 71, 72, 73 are grouped in units referred to in this embodiment as Level_0 clusters 66, 67, 68. Level_0 clusters are comprised of a set of gateways referred to as Level_0 members. In a Level_0 cluster 66 each gateway 69, 70, 71, 72, 73 may communicate network performance data with any other gateway 69, 70, 71, 72, 73 in the Level_0 cluster 66 such that the Level_0 cluster also defines every possible gateway pair that can be formed by its members.

The hierarchical network organization has several advantages. First,

traffic associated with the network performance monitoring and management function can be distributed and the processing burden can also be placed on the appropriate network monitor. Further, the hierarchical arrangement allows for topological localization of the network conditions being monitored. In particular, problems can be traced to the smallest relevant level of the network hierarchy, helping to isolate trouble spots.

Thus it would have been obvious at the time the invention was made to incorporate the teachings of Grabelsky within Bennefeld and Doshi so as to maintain and monitor network connections and overall quality of the network performance and quickly localize and isolate trouble spots

Allowable Subject Matter

Claims 5 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone numbers for the

organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

RJ
March 1, 2006